

ABSTRACT OF THE DISCLOSURE

A rubber grinding machine and method is provided for ambient temperature grinding of rubber material to form finely ground rubber particles. The rubber grinding machine includes a feed tube, a grinding module, a conveyor, a screening module and a vacuum system. Rubber material is placed in the feed tube which advances the rubber material into the grinding module using a plunger or auger. The grinding module includes a grinding wheel which grinds the rubber material into rubber particles. The grinding wheel is surrounded by a shroud which includes a water-cooled cooling jacket. The water is circulated through the cooling jacket to cool the shroud and its interior. Rubber particles ground by the grinding wheel fall through the bottom of the shroud onto a conveyor which deposits the rubber particles onto the screen module. The screen module includes at least one screen for separating the rubber particles by size. Rubber dust produced by the grinding wheel is processed by a vacuum system and may later be screened.